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Claudio Gini

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EXAMINER

FREEMAN, JOHN D

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,484	<b>Applicant(s)</b> GINI, CLAUDIO	
	<b>Examiner</b> John Freeman	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 49 and 51-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 49 and 51-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION*****Claim Objections***

1. Claim 63 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Independent claim 49 limits adhesive layer B one of a group consisting of a terionomer, a copolymer of ethylene modified with maleic anhydride, and an EVA/EMA copolymer. Dependent claim 63, however, attempts to limit B to one of a group that includes "*copolymers* of ethylene modified with maleic anhydride", which is broader than "*a copolymer* of ethylene modified with maleic anhydride".

2. Claims 49, 58-60, and 62 are objected to because of the following informalities:

- Claim 49 contains a typographical error: layer F comprises "an" adhesive rather than "a" adhesive.
- Claim 49 contains a typographical error: the phrase "selected from" appears twice in the discussion of layer E.
- Claim 58 contains a typographical error: "of" is misspelled "fo" in line 2 of the claim.
- Claim 58 contains a typographical error: the phrase "selected from" appears twice in the discussion of layer E.
- Claim 58 contains a typographical error: layer F comprises "an" adhesive rather than "a" adhesive.
- Claim 59 contains a typographical error: "of" is misspelled "fo" in line 2 of the claim.
- Claim 59 contains a typographical error: the phrase "selected from" appears twice in the discussion of layer E.
- Claim 59 contains a typographical error: layer F comprises "an" adhesive rather than "a" adhesive.
- Claim 59 contains a typographical error: the claim recites "LLOPE" instead of "LLDPE".
- Claim 60 contains a typographical error: the claim recites "LOPE" instead of "LDPE".

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- Claim 62 contains a typographical error: the claim recites “polyamide Pa 6/66”; “PA” should be capitalized.
3. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 49 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Shepard et al. (EP 0800915) taken in view of the evidence given in DUPONT Surlyn.
6. Shepard et al. (hereafter Shepard) disclose a shrink film useful for packaging (col 4 ln 33-34). Fig. 2, reproduced below by the examiner, represents one embodiment of the film, which Shepard discusses on column 11 line 24 through column 12 line 10.

25	Nylon
23	Adhesive
21	Nylon
20	Adhesive
22	Nylon
24	Adhesive
26	Sealant

7. The nylon layers are amorphous (col 11 ln 28), but may be blended with other polyamides such as nylon 6, nylon 6,6, nylon 6,12, nylon 12 (col 9 ln 20-23). The adhesives may be anhydride-modified polyolefin such as LLDPE, or EVA-based (ethylene vinyl acetate) (col 5 ln 36). The sealant layer may be LLDPE or an ionomer (col 12 ln 8-9). The examiner notes Shepard discloses the use of a SURLYN ionomer (col 12 ln 52-53). Such ionomers contain zinc and/or sodium ions as evidenced by the included trade material from the DUPONT company.
8. Although Shepard states outer layer 25 is ineffective as a moisture barrier, the reference is silent with regard to its effectiveness as a barrier to aqueous steam. The examiner takes the position that the nylon-containing layers share the same barrier-to-aqueous-steam properties as presently claimed because the nylon layers of Shepard contain the same polymers as presently claimed.

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9. Using the first embodiment of Shepard's film (col 7 ln 45+) as a guide to determine the appropriate thickness percentage of each layer, would result in layers with thicknesses as claimed by Applicant. For example, each nylon layer constitutes 5-20% of the overall thickness (col 8 ln 18), each adhesive layer constitutes either 5-20% or 10-40% of the overall thickness (col 9 ln 41-44), and the sealant layer constitutes 15-40% of the overall thickness (col 11 ln 11).

10. The examiner takes the position that Shepard's film would satisfy Applicant's Young's modulus and moment force limitations found in claims 49 and 51, as Shepard's film mirrors Applicant's film in structure and composition.

***Claim Rejections - 35 USC § 103***

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 59 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard et al. (EP 0800915).

13. Shepard discloses a multilayer structure as previously described.

14. Regarding claim 59:

15. Shepard discloses the amorphous nylon layers may be blended with any other nylon (col 9 ln 16-23). In the discussion of a nylon layer, Shepard specifically discloses the use of nylon 6,66 as one of various nylons (col 10 ln 25-32).

16. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use nylon 6,66 in the blend with amorphous polyamide because Shepard provides motivation to use any type of nylon, and then specifically identifies nylon 6,66 as a possible nylon.

17. Regarding claim 63:

18. Shepard is silent with regard to the specific thicknesses claimed.

19. The ranges disclosed by Shepard overlap, however, with those claimed by Applicant. As set forth in MPEP 2144.05, in the case where the claimed range "overlap or lie inside ranges disclosed by the prior art", a *prima facie* case of obviousness exists, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

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20. At the time of the invention, it would have been obvious to one of ordinary skill in the art to create layers with the claimed thicknesses through routine experimentation of Shepard's invention.

21. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard et al. (EP 0800915) in view of Mergenhagen et al. (WO 97/48554) or Wallace et al. (US 2003/0157355).

22. Shepard discloses a multilayer structure as previously described.

23. Shepard states sealant layer 26 may comprise any suitable sealing polymer (col 12 ln 4-10).

24. Shepard is silent with regard to a sealant layer of ethylene plastomer.

25. Ethylene plastomers were well-known in the art to be suitable sealants for packaging purposes. For example, Mergenhagen discloses ethylene plastomers for peelable seals (abstract). Also Wallace teaches ethylene plastomers as equivalent and exchangeable sealant for LLDPE a sealable layer in a multilayer heat-shrinkable film [0013].

26. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use an ethylene plastomer as the sealant layer 26 because it was a well-known sealant with moisture barrier properties.

27. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard et al. (EP 0800915) in view of DiPoto (US 5,558,930).

28. Shepard discloses a multilayer structure as previously described. Shepard states sealant layer 26 may comprises LDPE (col 12 ln 10). As noted above Shepard specifically discloses the use of nylon 6 and nylon 6,66 as suitable nylons to be incorporated into the nylon layers (col 10 ln 25-32).

29. Shepard is silent with regard to an adhesive layer comprising EVA/EMA copolymer.

30. However, the use of multipolymer-based adhesives including copolymers of EVA and EMA was well-known in the art to be an equivalent and exchangeable adhesive for the modified polyolefins or EVA used by Shepard, as disclosed by DiPoto for example (col 4 ln 59-col 5 ln 5).

31. At the time of the invention, it would have been obvious to one of ordinary skill in the art to replace any of the adhesive layers with an equivalent adhesive such as EVA/EMA copolymer.

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32. Claims 49, 51, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh (US 5,843,502) in view of Hart, Jr. et al. (US 5,202,162).

33. Regarding claims 49, 51, and 63:

34. Ramesh discloses a seven-layered heat-shrinkable film for packaging (col 1 ln 8-14). The examiner reproduces Fig. 5 with the composition of each layer identified, and how the layers relate to Applicant's claimed multilayer film (col 21 ln 25-col 22 ln 44):

57	polyamide	G	polyamide
56	LLDPE w/ MAH	F	LLDPE w/ MAH
52	polyamide	E	polyamide
53	grafted EVA	D	ethylene copolymer with MAH
54	polyamide	C	polyamide
55	LLDPE w/ MAH	B	LLDPE w/ MAH
51	ionomer	A	ionomer

where "MAH" is maleic anhydride and "EVA" is ethylene/vinyl acetate copolymer.

35. Layers 52, 54, and 57 may each comprise polyamides. Ramesh teaches polyamides such as PA 6; PA 66; and copolymers thereof provide abuse-resistance and elastic recovery properties to the film (col 19 ln 39-55).

36. The grafted EVA refers to EVA grafted with maleic anhydride (col 13 ln 6-13).

37. Note layer 51 is analogous to a disclosed layer 14 of another embodiment (col 21 ln 25-30), which can comprise an ionomer (col 16 ln 54-62).

38. Ramesh is silent with regard to the identity of the cation of the ionomer.

39. Zinc and sodium metals were wholly conventional cations for ionomers at the time of the invention. For example, Hart, Jr. discloses ionomers typically comprise sodium and zinc (col 4 ln 65+).

40. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use zinc and/or sodium salts as they come from readily available and inexpensive neutralizing agents.

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41. Though the thickness of the multilayered film is not limited, Ramesh provides guidelines for a film ranging from 0.3-15 mils (col 15 ln 60+). The following table lists the thickness ranges for the individual layers:

	Thickness (mils)
57	1.2
56	1.85
52	0.2-10
53	0.1-5
54	0.1-8
55	0.05-9
51	0.02-3

These values either anticipate or otherwise overlap with the presently claimed thicknesses. As set forth in MPEP 2144.05, in the case where the claimed range “overlap or lie inside ranges disclosed by the prior art”, a *prima facie* case of obviousness exists, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

42. The examiner takes the position that Ramesh’s film would satisfy Applicant’s Young’s modulus and moment force limitations, as the film mirrors Applicant’s film in structure and composition.

43. Claims 52-55, 57, and 64-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh (US 5,843,502) in view of Hart, Jr. et al. (US 5,202,162) as applied to claims 49, 51, and 63 above, and further in view of Kamp (US 4,561,108).

44. Ramesh discloses a seven-layered heat-shrinkable film for packaging as previously described.

45. Regarding claims 52 and 64:

46. Ramesh is silent with regard to an adhesive layer comprising a terionomer.

47. However, the use of multipolymer-based adhesives including ionomeric copolymers was well-known in the art to be an equivalent and exchangeable adhesive for the modified polyolefins or modified EVA used by Ramesh, as disclosed by Kamp for example (col 14 ln 54+).

48. At the time of the invention, it would have been obvious to one of ordinary skill in the art to replace any of the adhesive layers 53, 55, and 56 with an equivalent adhesive such as an ionomeric-containing terpolymer.



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49. Regarding claims 53 and 65:

50. Ramesh teaches one can use additionally in the polyamide layers aliphatic polyamides including PA 11; PA 12; and PA 6,12 (col 19 ln 39-55).

51. Regarding claims 54, 55, 66, and 67:

52. Ramesh teaches one can use additionally in the polyamide layers amorphous polyamides including PA 6I and PA 6T(col 19 ln 39-55).

53. Regarding claim 57:

54. PA 6 is an aliphatic polyamide.

55. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh (US 5,843,502) in view of Hart, Jr. et al. (US 5,202,162) as applied to claims 49, 51, and 63 above, and further in view of Ramesh et al. (US 5,534,277)

56. Ramesh discloses a seven-layered heat-shrinkable film for packaging as previously described. Ramesh discloses the use of copolymers of PA 6 and PA 66 and amorphous PA.

57. Ramesh is silent with regard to a polyamide layer containing a blend of PA 6/66, amorphous PA, and a terionomer.

58. It was well-known in the art that the addition of ionomer-based polymers affect the crystallinity of polyamides and therefore provides a way to control various properties of a film, such as the ability to orient the film as disclosed by Ramesh '277 for example (abstract, col 3 ln 60-col 4 ln 2).

59. At the time of the invention, it would have been obvious to one of ordinary skill in the art to add a terionomer to the polyamide blend to control the crystallinity of the layer, and thereby control properties of the resultant film, such as the ability to orient the film.

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60. Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh (US 5,843,502) in view of Hart, Jr. et al. (US 5,202,162) as applied to claims 49, 51, and 63 above, and further in view of Kamp (US 4,561,108), DiPoto (US 5,558,930), and McDonald et al. (US 6,148,587).

61. Regarding claim 61:

62. Ramesh discloses a seven-layered heat-shrinkable film for packaging as previously described.

63. Ramesh is silent with regard to an adhesive layer comprising a terionomer.

64. However, the use of multipolymer-based adhesives including ionomeric copolymers was well-known in the art to be an equivalent and exchangeable adhesive for the modified polyolefins or modified EVA used by Ramesh, as disclosed by Kamp for example (col 14 ln 54+).

65. At the time of the invention, it would have been obvious to one of ordinary skill in the art to replace any of the adhesive layers, including layer 55, with an equivalent adhesive such as an ionomeric-containing terpolymer.

66. Ramesh is silent with regard to an adhesive layer comprising EVA/EMA copolymer.

67. However, the use of multipolymer-based adhesives including copolymers of EVA and EMA was well-known in the art to be an equivalent and exchangeable adhesive for the modified polyolefins or EVA used by Ramesh, as disclosed by DiPoto for example (col 4 ln 59-col 5 ln 5).

68. At the time of the invention, it would have been obvious to one of ordinary skill in the art to replace any of the adhesive layers with an equivalent adhesive such as EVA/EMA copolymer.

69. Ramesh discloses layer 52 is a core layer (col 21 ln 38), and provides guidance that core layers can be selected for specific impermeability properties (col 14 ln 38-45).

70. Ramesh is silent with regard to a layer of PVA.

71. PVA was known to be an equivalent and exchangeable oxygen barrier for materials such as polyamide, and polyester. For example, McDonald discloses these polymers as barriers suitable for use in heat-shrinkable multilayer films (col 9 ln 39-50).

72. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use PVA as an oxygen barrier layer as the core layer 52 in Ramesh's film to protect the food product from spoilage.

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73. Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh (US 5,843,502) in view of Hart, Jr. et al. (US 5,202,162) as applied to claims 49, 51, and 63 above, and further in view of Kamp (US 4,561,108), DiPoto (US 5,558,930), and Shiiki et al. (US 6,245,437).

74. Regarding claim 62:

75. Ramesh discloses a seven-layered heat-shrinkable film for packaging as previously described.

76. Ramesh is silent with regard to an adhesive layer comprising a terionomer.

77. However, the use of multipolymer-based adhesives including ionomeric copolymers was well-known in the art to be an equivalent and exchangeable adhesive for the modified polyolefins or modified EVA used by Ramesh, as disclosed by Kamp for example (col 14 ln 54+).

78. At the time of the invention, it would have been obvious to one of ordinary skill in the art to replace any of the adhesive layers, including layer 55, with an equivalent adhesive such as an ionomeric-containing terpolymer.

79. Ramesh is silent with regard to an adhesive layer comprising EVA/EMA copolymer.

80. However, the use of multipolymer-based adhesives including copolymers of EVA and EMA was well-known in the art to be an equivalent and exchangeable adhesive for the modified polyolefins or EVA used by Ramesh, as disclosed by DiPoto for example (col 4 ln 59-col 5 ln 5).

81. At the time of the invention, it would have been obvious to one of ordinary skill in the art to replace any of the adhesive layers with an equivalent adhesive such as EVA/EMA copolymer.

82. Ramesh discloses layer 52 is a core layer (col 21 ln 38), and provides guidance that core layers can be selected for specific impermeability properties (col 14 ln 38-45).

83. Ramesh is silent with regard to a layer of PGA.

84. PGA was known to be an equivalent and exchangeable oxygen barrier for materials such as polyamide, and EVOH. For example, Shiiki discloses these polymers as barriers suitable for use in heat-shrinkable multilayer films (col 2 ln 15-28), and that PGA has better temperature and humidity resistance (col 2 ln 22).

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85. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use PGA as an oxygen barrier layer as the core layer 52 in Ramesh's film to protect the food product from spoilage.

***Claim Rejections - 35 USC § 112***

86. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

87. Claims 49 and 51-67 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

88. Claims 49 and 51-67 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

89. Claim 49 recites layers C, E, and G act as barriers to aqueous steam. The claim further recites each layer may comprise a polyamide polymer. As polyamides are not conventionally used as moisture or steam barriers—since the polymers absorb water—it is not clear in what way Applicant intends for the layers to act as barrier to aqueous steam.

90. Claim 49 recites a film “comprising a plurality of the overlaid layers” in line 2. There is insufficient antecedent basis for this limitation in the claim.

91. Claim 56 discloses layer E “comprises a mixture of polyamides PA 6/66 and amorphous PA blended with a terionomer.” It is unclear what the mixture contains. The mixture could comprise (i) PA 6/66, and (ii) amorphous PA blended with a terionomer; or (i) PA 6/66 and amorphous PA that is blended with (ii) terionomer. The examiner suggests Applicant amends the claim to read “...amorphous PA *that is* blended with a terionomer” as amended in claims 54 and 66.

92. Claim 58 recites a film “comprising a plurality of the overlaid layers” in line 2. There is insufficient antecedent basis for this limitation in the claim.

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93. Claim 58 first recites the make-up of layer B is selected from a group that includes a copolymer of ethylene modified with maleic anhydride. The claim later recites layer B comprises LLDPE modified with maleic anhydride. LLDPE is not a copolymer. As such, the claim conflicts with itself.

94. Claim 59 recites a film “comprising a plurality of the overlaid layers” in line 2. There is insufficient antecedent basis for this limitation in the claim.

95. Claim 59 first recites the make-up of layer B is selected from a group that includes a copolymer of ethylene modified with maleic anhydride. The claim later recites layer B comprises LLDPE modified with maleic anhydride. LLDPE is not a copolymer. As such, the claim conflicts with itself.

### ***Response to Arguments***

96. Applicant's arguments filed 9 January 2009 have been fully considered but they are not persuasive.

97. Applicant argues Shepard “fails to disclose an outer moisture barrier layer” and also “fails to disclose 3 moisture barrier layers” (p16). Applicant notes Shepard states layer 25 (corresponding to Applicant's layer G) “is not a moisture barrier”. Applicant submits that the outer layer of the present invention contains semicrystalline polymers, whereas Shepard uses a blend of amorphous nylon and semicrystalline nylon (p17). In response, the examiner first notes the present invention recites the layers act as barriers to aqueous steam, not necessarily to moisture. Further, one of ordinary skill in the art would recognize nylon, whether semicrystalline or amorphous, has poor moisture barrier properties. For example, see column 8 lines 55-57 of Shepard, which discloses nylons in general are ineffective as moisture barriers. As such, the examiner has made a new rejection under 35 USC 112, second paragraph to clarify what Applicant means by a barrier to aqueous steam. Also, if Applicant submits that the amorphous nylon used in Shepard's outer layer inhibits an intrinsic ability of semicrystalline nylons such as nylon 6 to act as a barrier layer, the examiner notes barrier layers C and E may comprise amorphous polyamide in claims 49, 54, 55, 58, 59, 63, 66, and 67. In conclusion, the examiner maintains the rejections based on Shepard because the nylon layers of Shepard contain the same polymers as

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presently claimed, and therefore must share the same barrier-to-aqueous-steam properties as presently claimed.

98. Applicant also points to Shepard's method of making multilayer films, which involves quenching. Applicant asserts "said method makes a semicrystalline nylon copolymer amorphous" (p19). The examiner agrees Shepard teaches a "lesser degree of crystallinity" can provide positive benefits to the film (col 8 ln 33-44). The examiner also agrees Shepard teaches the use of amorphous nylons that lack crystallinity. However, while Shepard teaches the "degree of crystallinity" of the film correlates to properties such as brittleness, Shepard does not state the layers should have zero crystallinity. In fact Shepard's method first air cools the polymers before quenching, which may provide time for the polymers to become semicrystalline (col 4 ln 44-50). Shepard also states the method provides control over the degree of crystallinity (col 15 ln 10-22). Regardless, Shepard teaches that *all* nylons are poor moisture barrier, not just amorphous nylons, which leads to questions under 35 USC 112, second paragraph, as noted above.

99. As Applicant believes outer layer 25 completely lacks crystallinity, Applicant argues only layers 21 and 22 have higher values of Young's modulus than the other layers. (p20). The examiner takes the position that Shepard's outer layer 25 does contain a degree of crystallinity, i.e. it is semicrystalline, which means the outer layer 25 would have a higher Young's modulus than the adhesive and sealant layers. Thus, the film is not symmetrical, and therefore satisfies the requirements of the present claims.

100. Applicant states an outer layer containing a semicrystalline polymer ruins Shepard's invention because "it would no longer exhibit the desired optical properties which are among its primary objects" (p20). Again the examiner notes Shepard does not teach an outer layer that completely lacks crystallinity, and in fact allows for a degree of control of the crystallinity of the film.

101. Applicant states "Shepard does not address or even mention the problem of curling" as presently disclosed (p19). The examiner takes the position that Shepard's film would satisfy Applicant's Young's modulus and moment force limitations found in the present claims, as Shepard's film mirrors Applicant's film in structure and composition.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Freeman whose telephone number is (571)270-3469. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571)272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Freeman  
Examiner  
Art Unit 1794

/John Freeman/  
Examiner, Art Unit 1794

/Callie E. Shosho/  
Supervisory Patent Examiner, Art Unit 1794